

Little Pond Subwatershed Falmouth, Cape Cod, Massachusetts

The Little Pond Subwatershed is located in Falmouth. It has an area of 775 acres. The Route 28 business corridor runs southwest to northeast. The area along Route 28 and to the south is intensely commercially and residentially developed, while the northwestern portion of the watershed is less developed and has some protected open space (Goodwill Park) and a golf course and Little League field. Little Pond has an inlet that connects it to the south with Vineyard Sound.

The Falmouth Pond Watchers have been conducting a water quality monitoring program that includes Little Pond for over ten years. One project the group undertook was to implement a new inlet design for Little Pond. Results from their 1997 monitoring season showed that sediment accumulation within the inlet channel had been greatly reduced and tidal exchange enhanced. Results also showed, though, that the pond remains highly overloaded with nutrients and has a high frequency of low bottom water oxygen events.

The final phase of the restoration plan for the pond, the extension of the inlet channel through the flood tidal delta to the depth of the pond basin, should help alleviate the current eutrophic conditions by facilitating “deep” flow in the pond. The goal of the restoration of pond circulation is to improve nutrient related water quality through increased tidal export of nitrogen and organic matter.

Approximately five percent of Falmouth is publicly sewered. The sewered areas are Main Street in Falmouth and nearly all of Woods Hole. Ninety to ninety-five percent of the town is on municipal water. There is one treatment plant in Falmouth, currently processing 550,000 gallons per day (gpd) with a capacity of 810,000 gpd and discharging to groundwater. A \$14 million upgrade has been approved to bring the capacity up to one million gpd in the next few years.

Stewards:

- Falmouth Pond Watchers
- Falmouth Associations Concerned with Estuaries and Saltponds (FACES)

Studies conducted in the watershed:

- Water Quality Monitoring of Falmouth’s Coastal Ponds: Results from the 1997 Season. Falmouth Pond Watchers. June 1998. A similar document is also available for the 1994-95 and 1996 sampling seasons.
- Cape Cod Atlas of Tidally Restricted Salt Marshes. 2001. Cape Cod Commission.

Who is collecting water quality data and where:

- Falmouth Pond Watchers sample Little Pond once every two weeks in July and August. Data is collected on depth; salinity; dissolved oxygen; water temperature, clarity, and color; and a host of nutrients including nitrate-nitrogen, nitrite-nitrogen, and phosphate. View data at www.state.ma.us/czm/falmouth_pond_watchers.htm.
- The United States Geological Survey maintains a stream flow gauge in Little Pond, collecting data that will be used in the Massachusetts Estuaries Project.

Management actions taken:

- Little Pond was selected as a priority area for the Estuaries Project – Southeastern Massachusetts Embayment Restoration, funded by the state and UMass Dartmouth. The goal of the project is to develop critical nutrient loading thresholds for each embayment to aid in water resources planning. This will support federal requirements for the development of Total Maximum Daily Loads for impaired surface waters.
- A sewer system is being evaluated for the Maravista Peninsula that would include a decentralized package treatment plant in the area. The cost of a system is estimated to be between \$20 and \$25 million.

Subwatershed facts: (For data sources see Appendix)

- 21 E sites: 3, located at Mobil Station, Davis Straights Road, Sunoco Station, Teaticket Highway, and Falmouth Department of Public Works
- Solid waste sites: none
- No Interim Wellhead Protection Areas (IWPAs) or Zone IIs.
- Percent of the undeveloped land that is protected (according to 1985/1990 data): 49.7%
- Acres of existing wetlands: 2
- Certified vernal pools: 3
- Named freshwater ponds: none
- Named rivers or creeks: none
- Shellfish growing areas: Little Pond is under management closure for shellfish harvesting.

Priorities:

- Develop critical nutrient loading thresholds for Little Pond to aid in water resources planning and the development of TMDLs.
- Install a sewer system on the Maravista Peninsula.
- Implement those salt marsh restoration projects identified in the 2001 *Cape Cod Atlas of Tidally Restricted Salt Marshes* that have been evaluated and prioritized by the town. The site in this subwatershed is the Grand Avenue restriction of channel into Little Pond (Site FA-2).
- Acquire open space. Parcels considered a priority for acquisition for water supply protection and development: Falmouth Tracts 4, 6, 11, 12, 19, 26, 33, and 35 were ranked as having medium or high water supply development potential in the Cape Cod Commission's *Priority Land Acquisition Assessment Project* (April 1999). These tracts are located throughout the Town of Falmouth.

Recreation:

Camping areas: none

Golf courses:

- Woodbriar Golf Course

Pathways and trails:

- Goodwill Park
- www.capecodcommission.org/pathways/trailguide.htm

Public access:

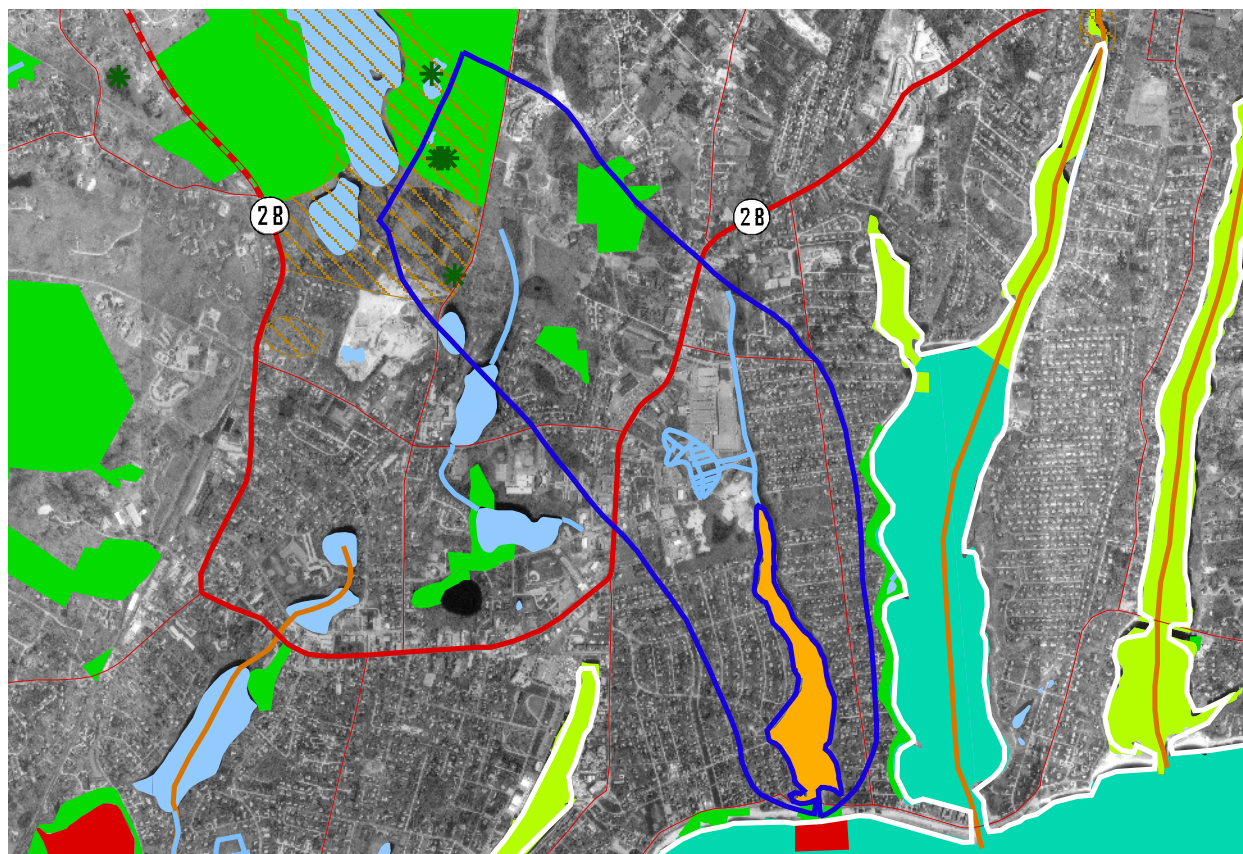
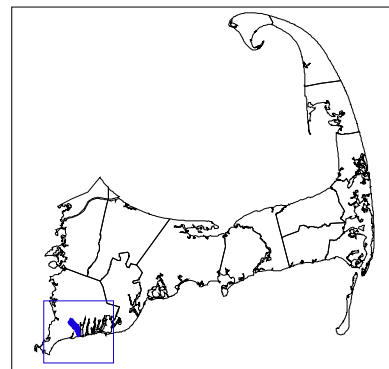
- www.state.ma.us/dfwele/pab/pabSEmap.htm

Public beaches and landings:

- Bristol Beach

Little Pond

Falmouth, MA



Watershed Resources



0.5 0 0.5 Miles

Natural Heritage and Endangered Species Program Data

- Certified Vernal Pool
- Priority Habitats of Rare Species
- Estimated Habitats of Rare Species

Groundwater Protection Areas

- Interim Wellhead Protection Area
- Zone II
- Solid Waste Facility

Watershed Boundary

Anadromous Fish Run

Shellfish Growing Areas

- APPROVED
- CONDITIONALLY APPROVED
- MANAGEMENT CLOSURE
- PROHIBITED
- RESTRICTED
- Open Space

Streams

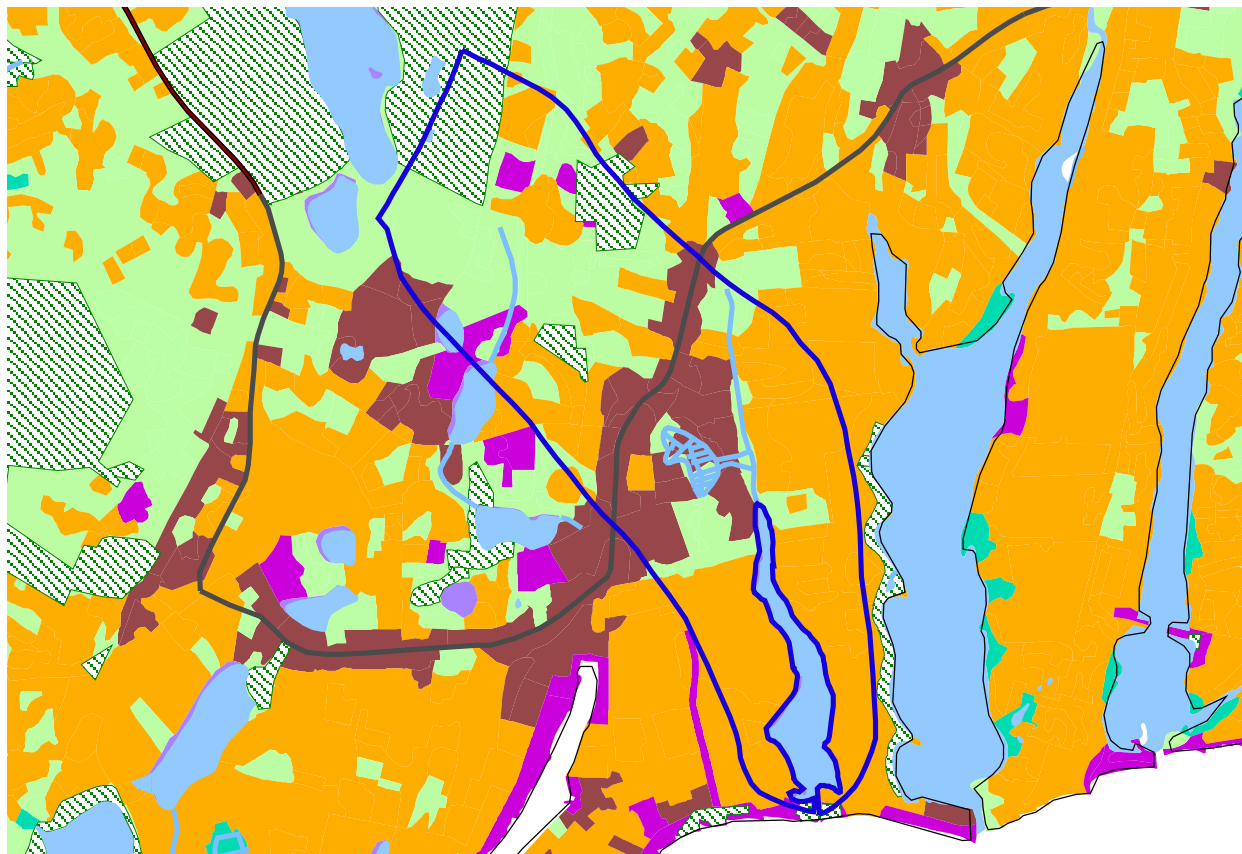
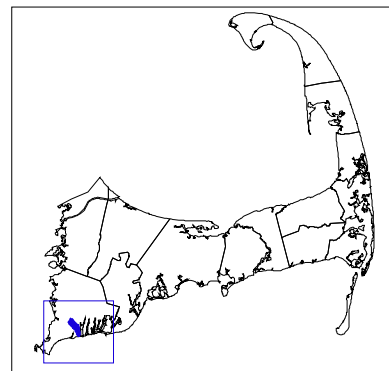
Ponds

Roads



Little Pond

Falmouth, MA



Land Use



0.5 0 0.5 Miles

Land Use

- non-residential
- developed
- open land
- recreation
- residential
- water
- wetland

- Streams
- Ponds

- Watershed Boundary

- Protected Open Space

